CLAIMS

It is claimed:

1. (currently amended) An electronic control with a power supply that isolates ~~the~~ control voltages from ~~the~~ ac source voltages, said control having a plurality of electrical connections between digital nodes and ac nodes, said electrical connections being made through passive components, ~~the~~ and subsequent signals on digital nodes being compared to ~~determine~~ ascertain the state of one or more ac paths.

2. (currently amended) The control in accordance with claim 1 wherein said ~~determined~~ ascertained state of at least one of said ac paths indicates whether ~~a~~ an ac switching device is open or closed.

3. (currently amended) The control in accordance with claim 1 wherein said ~~determined~~ ascertained state of at least one of said ac paths indicates whether ~~a~~ an ac functional load component is present.

4. (original) The control in accordance with claim 1 wherein at least one of said signals is used to determine zero crossings.

5. (currently amended) The control in accordance with claim 1 wherein said passive components limit ~~the~~ current from said ac source through ~~the~~ an operator to a safe level should said operator contact any control node.

6. (currently amended) An electronic control with a power supply that isolates ~~the~~ control voltages from ~~the~~ ac source voltages, said control having a plurality of electrical connections between digital nodes and ac nodes, said electrical connections being made solely through ~~non-reactive~~ passive components, ~~the~~ and subsequent signals on digital nodes being compared to ~~determine~~ ascertain the state of one or more ac paths.

7. (currently amended) The control in accordance with claim 6 wherein said ~~determined~~ ascertained state of at least one of said ac paths indicates whether ~~a~~ an ac switching ~~devices~~ device is open or closed.

8. (currently amended) The control in accordance with claim 6 wherein said ~~determined~~ ascertained state of at least one of said ac paths indicates whether ~~a~~ an ac functional load component is present.

9. (original) The control in accordance with claim 6 wherein at least one of said signals is used to determine zero crossings.

10. (currently amended) The control in accordance with claim 6 wherein said passive components limit ~~the~~ current from said ac source through ~~the~~ an operator to a safe level should said operator contact any control node.

11. (currently amended) An ~~appliance~~ electronic control with a power supply that isolates ~~the~~ control voltages from ~~the~~ ac source voltages, said control having a plurality of electrical connections between digital nodes and ac nodes, said electrical connections being made through non-reactive passive components, ~~the~~ and subsequent signals on said digital nodes being compared to ~~determine~~ ascertain the state of one or more ac paths.

12. (currently amended) The control in accordance with claim 11 wherein said ~~determined~~ ascertained state of at least one of said ac paths indicates whether ~~a~~ an ac switching ~~devices~~ device is open or closed.

13. (currently amended) The control in accordance with claim 11 wherein said ~~determined~~ ascertained state of at least one of said ac paths indicates whether ~~a~~ an ac functional load component is present.

14. (original) The control in accordance with claim 11 wherein at least one of said signals is used to determine zero crossings.

15. (currently amended) The control in accordance with claim 11 wherein said non-reactive passive components limit ~~the~~ current from said ac source through ~~the~~ an operator to a safe level should said operator contact any control node.

16. (currently amended) The control in accordance with claim 11 wherein said ~~passive components are non-reactive components~~ electrical connections are made solely through non-reactive passive components.

17. (currently amended) The control in accordance with claim 16 wherein said ~~determined~~ ascertained state of at least one of said ac paths indicates whether ~~a~~ an ac switching ~~devices~~ device is open or closed.

18. (currently amended) The control in accordance with claim 16 wherein said ~~determined~~ ascertained state of at least one of said ac paths indicates whether ~~a~~ an ac functional load component is present.

19. (original) The control in accordance with claim 16 wherein at least one of said signals is used to determine zero crossings.

20. (currently amended) The control in accordance with claim 16 wherein said non-reactive passive components limit ~~the~~ current from said ac source through ~~the~~ an operator to a safe level should said operator contact any control node.